

A new species of the jumping spider genus *Phlegra* Simon, 1876 from India (Aranei: Salticidae: Aelurillina)

Новый вид пауков-скакунчиков из рода *Phlegra* Simon, 1876 из Индии (Aranei: Salticidae: Aelurillina)

Dhruv A. Prajapati
Дхрув А. Праджапати

Research and Development Centre, Bharathiar University, Coimbatore – 641 014, India.
GEER Foundation, Indroda Nature Park, Gandhinagar, Gujarat 382007, India.
E-mail: dhruvspidy215@gmail.com

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КЛЮЧЕВЫЕ СЛОВА: Araneae, распространение, Южная Азия, таксономия.

ABSTRACT. A new species of jumping spiders from the genus *Phlegra* Simon, 1876 is described from India. A detailed morphological description, diagnosis and illustrations of the copulatory organs are provided. Distribution of the new species is mapped.

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РЕЗЮМЕ. Описан новый вид пауков-скакунчиков из рода *Phlegra* Simon, 1876 из Индии. Приводятся детальное описание, диагноз и иллюстрации копулятивных органов. На карте показано распространение нового вида.

Introduction

The genus *Phlegra* is widespread and currently includes 80 valid species [WSC, 2019], of which 37 species (nearly a half) are reported from Asia. Four *Phlegra* species have been reported/described from India: *P. davidi* (Caleb, Mungkung et Mathai, 2015), *P. dhakuriensis* (Tikader, 1974), *P. fasciata* (Hahn, 1826) and *P. prasanna* Caleb et Mathai, 2015 [WSC, 2019], but the validity and generic assignment of some of these species require further studies. The dark-bodied *P. prasanna* was recently described from South India [Caleb *et al.*, 2015]; in the present paper, a new species of *Phlegra* from India which has a similar general appearance to *P. prasanna* is diagnosed and described.

Material and methods

The studied specimens were hand-collected and examined by means of a LEICA S8AP0 stereomicro-

scope. All measurements are in mm. The length of palp and leg segments is given as follows: total (femur, patella, tibia, metatarsus (except palp), tarsus). Spine positions are as follows: prolateral, dorsal, retrolateral and ventral. B/W drawings were made by means of a drawing apparatus attached to the LEICA microscope. Digital images were taken by a Leica DFC2900 digital camera attached to the Leica M205 A stereomicroscope, with the software package Leica Application Suite (LAS), version 4.5.0. The type series has been deposited in the reference collection of the Gujarat Ecological and Educational Research (GEER) Foundation, Gandhinagar, India.

Abbreviations used in the text are as follows: ALE — anterior lateral eye, AME — anterior median eye, PLE — posterior lateral eye, PME — posterior median eye, I–IV — 1st to 4th legs.

Description

Phlegra Simon, 1876

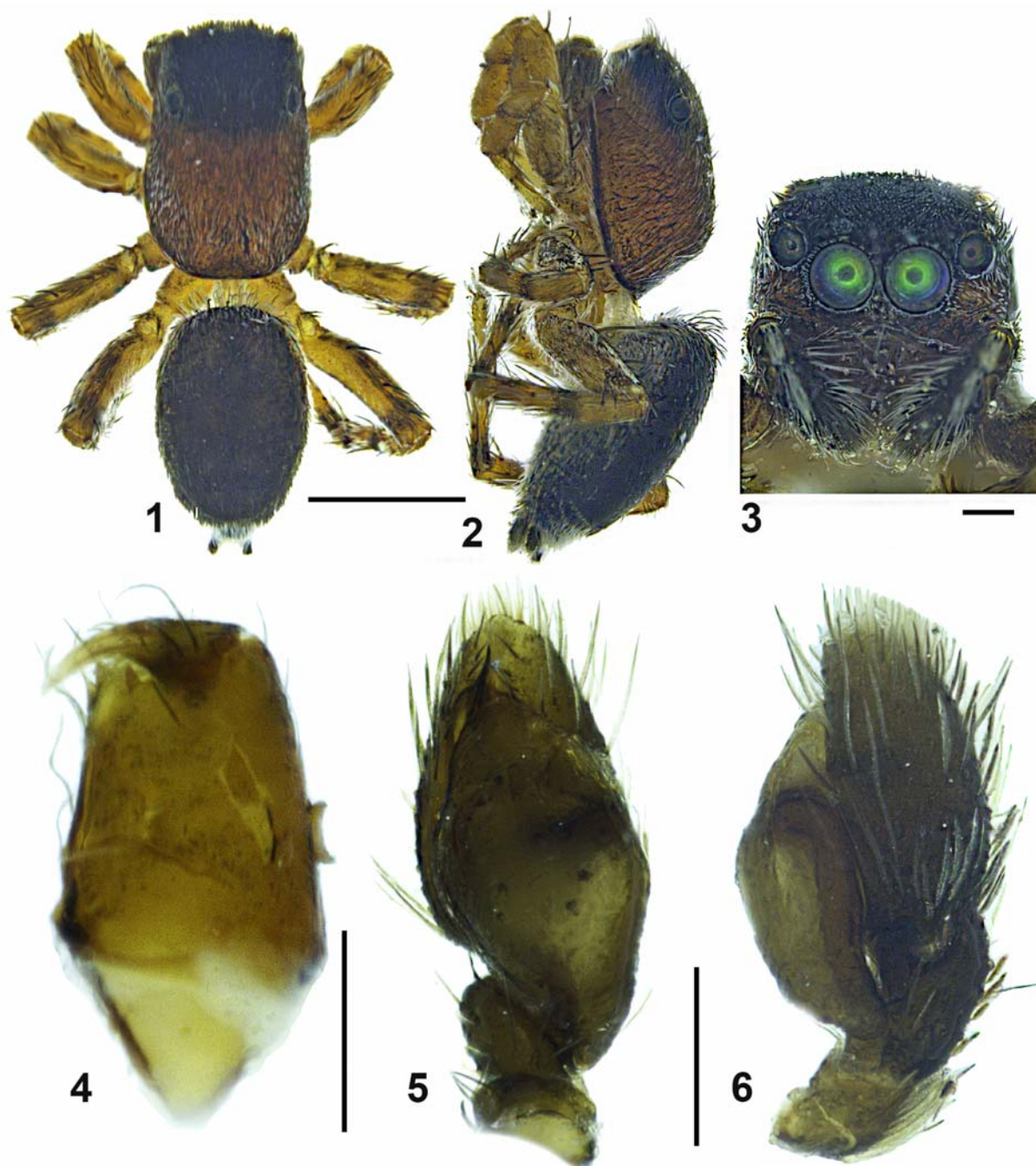
Type species: *Attus fasciatus* Hahn, 1826.

Phlegra abhinandanvarthamani sp.n. Figs 1–9, Map.

TYPES: HOLOTYPE ♂ (GJSP874361A) from India, Gujarat, Ahmedabad, Gujarat University (23°02'11.72"N, 72°32'33.40"E), 53 m a.s.l., from foliage, 16.11.2015, D.A. Prajapati. — PARATYPE: 1 ♂ (GJSP874361B), together with the holotype.

ETYMOLOGY. The specific epithet is dedicated to an air warrior of the Indian Air Force, a Wing Commander Abhinandan Varthaman, for his valorous actions and courage during the India-Pakistan standoff in 2019.

DIAGNOSIS. By its general appearance, the new species is similar to *P. prasanna* but can be easily distinguished from it by the bi-ramous, broad and blunt retrolateral tibial apophysis (Figs 6, 8) (bi-ramous, but narrow and spiniform in *P. prasanna*; see figs 54 and 56 in Caleb *et al.* [2015]);



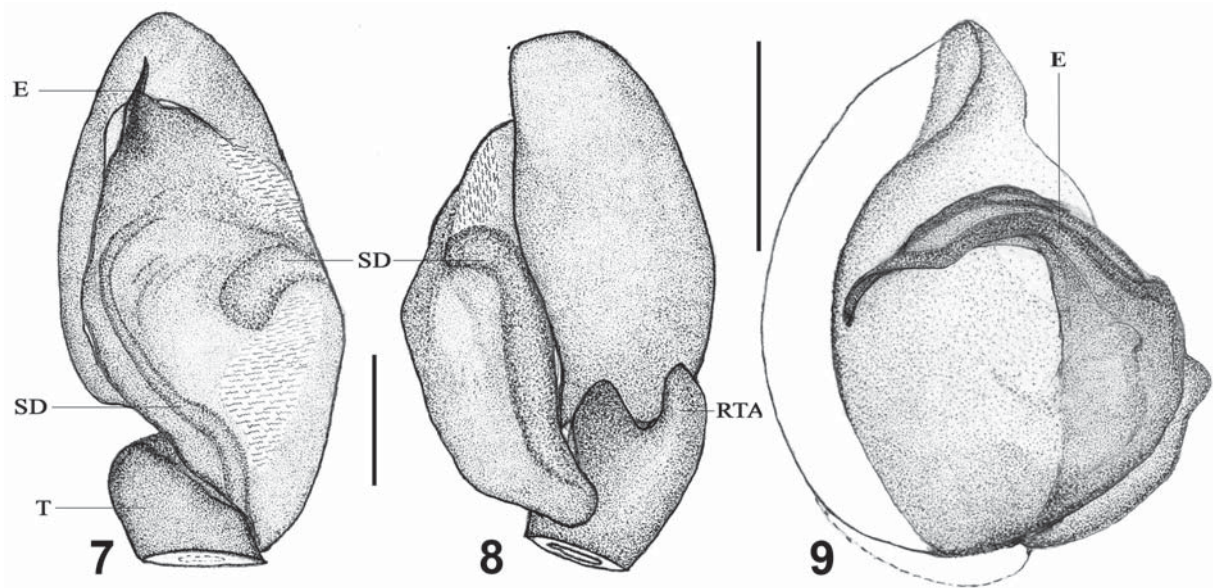
Figs 1–6. Holotype male of *Phlegra abhinandanvarthamani* sp.n.: 1 — general appearance, dorsal view; 2 — ditto, lateral view; 3 — carapace, frontal view; 4 — chelicerae and endites, ventral view; 5 — left palp, ventral view; 6 — ditto, retrolateral view. Scale bars: 1, 2 (1 mm); 3–6 (0.2 mm).

Рис. 1–6. Голотип-самец *Phlegra abhinandanvarthamani* sp.n.: 1 — общий вид, дорзально; 2 — тоже, сбоку; 3 — головогрудь, спереди; 4 — хелицеры и максиллы, снизу; 5 — левая пальпа, вид снизу; 6 — тоже, вид сбоку-сзади. Масштаб: 1, 2 (1 мм); 3–6 (0,2 мм).

the embolus stout and flattened, with a broad base and narrow tip (Fig. 9) (the comparatively longer, thread-like and slightly bent embolus in *P. prasanna*; see figs 53 and 55 in Caleb *et al.* [2015]).

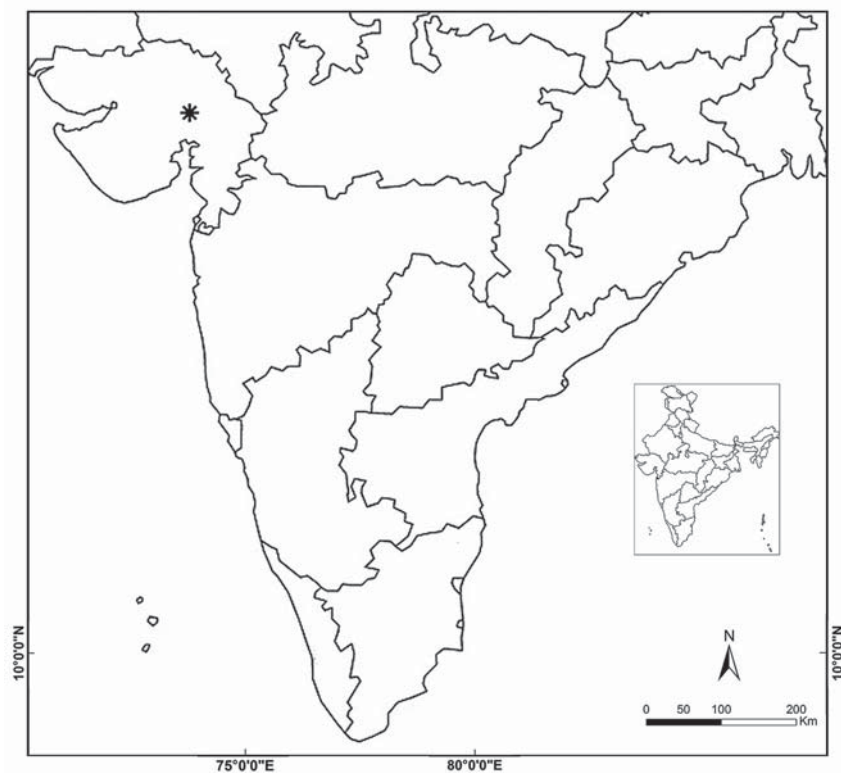
DISTRIBUTION. The type locality only: Ahmedabad, Gujarat, India (Map).

DESCRIPTION. MALE (the holotype, Figs 1–9). Carapace pear-shaped, covered with numerous setae; cephalic region blackish brown, eyes encircled by minute whitish setae, apical margin of anterior eye row with longer setae; thoracic region brownish with a dark brown reticulation (Figs 1–3). Clypeus, chelicerae, endites, labium and sternum



Figs 7–9. Holotype male left palp of *Phlegra abhinandanvarthamani* sp.n. (holotype ♂): 7 — ventral view; 8 — retrolateral view; 9 — embolus, apical view. Scale bars: 7, 8 (0.1 mm), 9 (0.05 mm). Abbreviations: E — embolus; RTA — retrolateral tibial apophysis; SD — sperm duct; T — tibia.

Рис. 7–9. Левая палпа голотипа-самца *Phlegra abhinandanvarthamani* sp.n. (holotype ♂): 7 — вид снизу; 8 — вид сбоку-сзади; 9 — эмболюс, вид сверху. Масштаб: 7, 8 (0,1 мм), 9 (0,05 мм). Сокращения: E — эмболюс; RTA — ретролатеральный отросток; SD — семенной каналец; T — голень.



Map. The type locality of *Phlegra abhinandanvarthamani* sp.n. in India.
Карта. Типовой локалитет *Phlegra abhinandanvarthamani* sp.n. в Индии.

brownish. Clypeus with scattered whitish setae. Chelicerae with two promarginal and one retromarginal teeth (Fig. 4); fangs medium sized, yellowish brown (Fig. 4). Legs yellowish brown; first two pairs with black blotches laterally, last two pairs with black bands at each segments along with a longitudinal black band on the dorsal side of femora. Abdomen oval and blackish brown, with transparent and dark brown setae; the posterior tip of abdomen with a bunch of whitish setae (Figs 1–2); lateral sides are covered with whitish setae (Fig. 2); venter whitish, with a discontinuous longitudinal black band. Spinnerets blackish. Body length 2.95. Carapace length 1.57, width (at the middle) 1.03, height (at the middle) 0.74. Abdomen length 1.38, width (at the middle) 0.95, height (at the middle) 0.85. Eye diameter: ALE 0.13, AME 0.24, PLE 0.16, PME 0.05. Eye interdistances: AME–AME 0.03, AME–ALE 0.03, ALE–ALE 0.63, ALE–PME 0.20, PLE–PLE 0.69, PME–PME 0.74, PME–PLE 0.10. Clypeal height at ALE 0.22, at AME 0.07. Cheliceral length 0.30. Measurements of palp and legs: Palp 0.93 [0.33, 0.12, 0.13, 0.35], I 1.81 [0.63, 0.28, 0.39, 0.24, 0.27], II 1.71 [0.62, 0.28, 0.33, 0.20, 0.28], III 1.86 [0.64, 0.23, 0.32, 0.37, 0.30], IV 2.92 [0.93, 0.34, 0.64, 0.57, 0.44]. Leg formula: 4312. Spination. Palp: 0100, 0000, 0000, 0000; legs: femora I–II 0500, III–IV 0700; patellae I–II 0000, III–IV 1010; tibiae I 3004, II 1004, III 2032, IV 3133; metatarsi I 1014, II 2014, III 1312, IV 3523; tarsi I–IV 0000. Palp (Figs 5–8): palpal segments dark brown, with a significant amount of white hairs on dorsal side of the cymbium, tibia and patella as in Fig. 3. Embolus stout, flattened with a

prominent curve which can be seen from apical view, embolic base broader and narrow tip directed at 12 o'clock position (Figs 5, 7, 9). Sperm duct proximally thick and distally narrow (Figs 5–8). Retrolateral tibial apophysis bi-ramous, broad, blunt and U-shape as seen in retrolateral view (Figs 6, 8).

FEMALE is unknown.

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